Florida Department of
Environmental Protection

Memorandum

TO: Rick Bradburn
THROUGH: Armando I. Sarasua, P.E.
FROM: Debbie Moore
DATE: April 4, 2011
SUBJECT: Evaluation Summary for U.S. Department of Justice - Federal Bureau of Prisons, Marianna Federal Correctional Institution, 0630062-002-AO, Jackson County

We recommend issuing a permit to the U.S. Department of Justice - Federal Bureau of Prisons to operate their Marianna Federal Correctional Institution. This is the initial operating permit for Marianna Federal Correctional Institution and incorporates 0630062-001-AC, effective December 30, 2009.

Process Description. This permit is for the operation of three 10.3 MMBtu/hour natural gas/distillate package boilers. Each boiler is equipped with its own separate stack. They are used to produce steam for building heat, as well as domestic hot water for the kitchen, showers, and restrooms for the facility. They have operated on natural gas fuel only since installation, but are equipped with the capability to burn distillate fuel oil during periods of extended natural gas service interruption. Due to the boilers being installed after June 9, 1989 and having a design capacity between 10 and 100 MMBtu/hr, each of the boilers are subject to the requirements of 40 CFR Part 60 subpart Dc and 62-296.406 (small boiler BACT), which requires a BACT determination for particulate matter (PM) and sulfur dioxides (SO2). The Department's BACT determination requires the boilers to burn only natural gas except for periods of gas curtailment or other gas supply emergencies. BACT also requires any back-up distillate fuel oil to contain no more than 0.05% sulfur, by weight.

Pollution Control Equipment. Use of natural gas only or No. 2 fuel oil with a maximum sulfur content of 0.05 percent by weight during periods of emergency, such as natural gas curtailment.

Environmental Impact.

Airborne Contaminant Emitted	FAC Rule	Estimated Emissions		Allowable Emissions	
		lbs/hr	T/yr	lb/hr	T/yr
PM	N/A	N/A	2.8	N/A	N/A
SO2	N/A	N/A	6.8	N/A	N/A
VOC	N/A	N/A	0.74	N/A	N/A
NOx	N/A	N/A	18.8	N/A	N/A
CO	N/A	N/A	11.3	N/A	N/A
Objectionable Odors	62-296.320(2)	N/A	N/A	None allowed off plant property	
VE	N/A	N/A	N/A	Not more than 20%, except for a two minute period per hour not to exceed 40%	

Applicable Rules & Regulations. This source is regulated in accordance with Rules 62-210.300 and 62-296.406, F.A.C., and 40 CFR 60 subpart Dc.

Compliance Monitoring. Compliance is demonstrated through recordkeeping of each fuel combusted and fuel supplier certifications. Also, VE testing (EPA Method 9) will be conducted once during the 12

months prior to the renewal date of the air operating permit and within 30 days of any boiler being fired (operated) on distillate oil (back-up fuel). Once an initial one hour EPA Method 9 test has been conducted on each boiler using distillate oil, then a subsequent test using distillate oil shall only be required if the boilers operated on distillate for more than 400 hours during the federal fiscal year. If the Department has good cause, the facility will be required to conduct testing beyond the VE requirements mentioned above.

Compliance History. Boilers were installed in 2006, without a construction permit.

Fee Summary. This is an AO2B ($1,000 fee) minor source with other sample. The original construction permit fee was $1,000 for an AC1E facility (source greater than 5 TPY but less than 25TPY).

DLM/c